**EFFECT OF RADIOFREQUENCY CATHETER ABLATION ON ECHOCARDIOGRAPHIC PARAMETERS OF LEFT VENTRICULAR SYNCHRONY IN PATIENTS WITH PRE-EXCITATION DUE TO WOLFF-PARKINSON-WHITE SYNDROME**

**G.H. Davoodi**, H. Ashraf, A, Kazemisaeid, S. Sadeghian, A. Vasheghani-Farahani,

M. Sahebjam

Dept. of Cardiology, Tehran Heart Center, Tehran University of Medical Sciences, Tehran, Iran

Objectives:Abnormal impulse propagation through an accessory pathway to the ventricle in Wolff–Parkinson–White (WPW) syndrome may cause asynchronous ventricular contraction resulting in deterioration of cardiac function in the absence of sustained tachyarrythmia. The aim of the study was to evaluate the effect of radiofrequency catheter ablation (RFCA) of the accessory pathways on left ventricular (LV) synchrony in WPW patients.

Methods: The study population included 22 men and 4 women aged 18 to 60 years (mean age of 36.0±12.6 years).Transthoracic echocardiography (two-dimensional, Doppler and tissue echocardiogram) before and about one month after ablation were analyzed.

Results: prior to ablation, echocardiogram revealed overall normal LV size (LV end-diastolic volume = 99.3 ± 24.9 mm2), and ejection fraction (53.9 ± 6.0%). LV ejection fraction was impaired (<55%) in 14/26 patients (54%) which had significant improvement in follow-up study. Interventricular mechanical delay differed significantly from pre-RFCA findings (P = 0.032). As a measure of global dyssynchrony, septal to posterior wall motion delay also decreased (P = 0.005). Twenty two patients had significant LV dyssynchrony (dyssynchrony\_all ≥ 100 ms or dyssynchrony\_basal ≥ 32.6 ms) which had a significant decremental pattern in dyssynchrony\_all (p = 0.018) and standard deviation of tissue doppler imaging at basal (p = 0.003) and all segments levels (p = 0.001), and also a trend of improvement in dyssynchrony\_basal (p = 0.082).

Conclusions: RFCA resulted in normalized QRS duration, mechanical resynchronization, and improved LV function. When LV synchrony deteriorates in asymptomatic patients with pre-excitation, we advocate serial echocardiographic assessments, and early referral for RFCA.